

=> file biosis caplus

=> s (bisht, n?)/au

L1 77 (BISHT, N?)/AU

=> s (jagannath, a?)/au

L2 36 (JAGANNATH, A?)/AU

=> s (gupta, v?)/au

L3 5453 (GUPTA, V?)/AU

=> s (burma, p?)/au

L4 54 (BURMA, P?)/AU

=> s (pental, d?)/au

L5 130 (PENTAL, D?)/AU

=> s l1 or l2 or l3 or l4 or l5

L6 5640 L1 OR L2 OR L3 OR L4 OR L5

=> s (fertil?(10a)restor?)/ab,bi

L7 3677 (FERTIL?(10A) RESTOR?)/AB,BI

=> s l6 and l7

L8 21 L6 AND L7

=> dup rem l8

PROCESSING COMPLETED FOR L8

L9 14 DUP REM L8 (7 DUPLICATES REMOVED)

=> d l9 1-14 ti py

L9 ANSWER 1 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

DUPLICATE 1

TI Retransformation of a male sterile barnase line with the barstar gene as an efficient alternative method to identify male sterile-restorer combinations for heterosis breeding.

PY 2007

L9 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

TI Cytoplasmic male sterility genotype for Brassica species and its use for hybrid seed production in Indian oilseed mustard Brassica juncea

PY 2006

L9 ANSWER 3 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

DUPLICATE 2

TI A new cytoplasmic male sterility system for hybrid seed production in Indian oilseed mustard *Brassica juncea*.

PY 2006

L9 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

TI Use of barstar gene for development of improved ***fertility***
restorer crop lines and hybrid seed production in crop plants

PY 2005

L9 ANSWER 5 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

DUPLICATE 3

TI A two gene - two promoter system for enhanced expression of a
restorer gene (barstar) and development of improved
fertility ***restorer*** lines for hybrid seed production in
crop plants.

PY 2004

L9 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

TI DNA markers and heterosis

PY 2002

L9 ANSWER 7 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

DUPLICATE 4

TI Development of transgenic barstar lines and identification of a male
sterile (barnase)/restorer (barstar) combination for heterosis breeding in
Indian oilseed mustard (*Brassica juncea*).

PY 2002

L9 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

TI ***Fertility*** ***restorer*** gene for *Brassica campestris*
"Polima" cytoplasmic male sterility

PY 2001

L9 ANSWER 9 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Identification of stable maintainer and ***fertility***
restorer lines for 'Polima' CMS in *Brassica campestris*.

PY 2000

L9 ANSWER 10 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation
on

STN DUPLICATE 5

TI High frequency regeneration of Brassica napus varieties and genetic transformation of stocks containing ***fertility*** ***restorer*** genes for two cytoplasmic male sterility systems.

PY 2000

L9 ANSWER 11 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation
on

STN DUPLICATE 6

TI A four-element based transposon system for allele specific tagging in plants: Theoretical considerations.

PY 2000

L9 ANSWER 12 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation
on

STN

TI Identification and inheritance of ***fertility*** ***restorer*** genes for 'tour' CMS in rapeseed (Brassica napus L.).

PY 1994

L9 ANSWER 13 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation
on

STN DUPLICATE 7

TI Somatic hybrids with substitution type genomic configuration TCBB for the transfer of nuclear and organelle genes from Brassica tournefortii TT to allotetraploid oilseed crop B. carinata BBCC.

PY 1994

L9 ANSWER 14 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation
on

STN

TI MECHANISM OF ***RESTORATION*** OF POLLEN ***FERTILITY*** IN SOME

NEWLY DEVELOPED PEARL MILLET MALE STERILES.

PY 1972

=> d 19 ab 4 5 7

L9 ANSWER 7 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN

DUPLICATE 4

AB Transgenic lines containing the barstar gene (encoding for Barstar an intracellular inhibitor of the ribonuclease, Barnase both from Bacillus

amyloliquefaciens) have been developed in Indian oilseed mustard, Brassica juncea, to develop a complete male sterility/restoration system for heterosis breeding in this crop. Transgenics were also raised using a modified sequence of the barstar gene based on parameters known to influence transgene expression in heterologous systems. The wild type and modified barstar lines were analysed for their restoration capabilities by crossing them with agronomically suitable male sterile barnase lines developed earlier in our laboratory. Of 30 different combinations of crosses tested between three male sterile barnase lines and several single-copy barstar lines, only one combination was found to ***restore*** male ***fertility*** among F1 progeny. Subsequent analysis of F2 progeny derived from such F1 restored events (containing both barnase and barstar genes) revealed stable inheritance of both genes in the segregating population thereby indicating proper functionality of the same. Further, pollen viability in restored events was found to be comparable to that observed in transgenic lines containing the barstar gene alone, indicating efficient restoration by the barstar protein in the presence of the ribonuclease. The male sterile line and its corresponding restorer identified in the present study constitute a complete, functional male sterility/restorer system in B. juncea and the traits can be diversified into appropriate combiners for heterosis breeding.

=> d 19 4 5 7

L9 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:34904 CAPLUS <<LOGINID::20080610>>

DN 142:108465

TI Use of barstar gene for development of improved ***fertility***

restorer crop lines and hybrid seed production in crop plants

IN ***Bisht, Naveen Chandra*** ; ***Jagannath, Arun*** ; ***Gupta,***

*** Vibha*** ; ***Burma, Pradeep Kumar*** ; ***Pental, Deepak***

PA University of Delhi South Campus, India; Dhara Vegetable Oil and Foods Company Limited

SO PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|----------|
| PI | WO 2005003361 | A1 | 20050113 | WO 2003-IN235 | 20030707 |
| AU | 2003247160 | A1 | 20050121 | AU 2003-247160 | 20030707 |
| EP | 1644506 | A1 | 20060412 | EP 2003-817344 | 20030707 |
| IN | 2006DN00121 | A | 20070824 | IN 2006-DN121 | 20060106 |
| US | 20070061912 | A1 | 20070315 | US 2006-563571 | 20060608 |

L9 ANSWER 5 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

DUPLICATE 3

AN 2004:405953 BIOSIS <<LOGINID::20080610>>

DN PREV200400402988

TI A two gene - two promoter system for enhanced expression of a
restorer gene (barstar) and development of improved
fertility ***restorer*** lines for hybrid seed production in
crop plants.

AU ***Bisht, Naveen Chandra*** ; ***Jagannath, Arun*** ; ***Gupta,***
Vibha ; ***Burma, Pradeep Kumar*** ; ***Pental, Deepak***

[Reprint Author]

CS Dept Genet, Univ Delhi, S Campus, Benito Juarez Rd, New Delhi, 110021,
India
dpental@hotmail.com

SO Molecular Breeding, (September 2004) Vol. 14, No. 2, pp. 129-144. print.
ISSN: 1380-3743 (ISSN print).

L9 ANSWER 7 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

DUPLICATE 4

AN 2002:373823 BIOSIS <<LOGINID::20080610>>

DN PREV200200373823

TI Development of transgenic barstar lines and identification of a male
sterile (barnase)/restorer (barstar) combination for heterosis breeding in
Indian oilseed mustard (Brassica juncea).

AU ***Jagannath, Arun*** ; Arumugam, N.; ***Gupta, Vibha*** ; Pradhan,
Akshay; ***Burma, Pradeep Kumar*** ; ***Pental, Deepak*** [Reprint
author]

CS Centre for Genetic Manipulation of Crop Plants, University of Delhi,
Benito Juarez Road, South Campus, New Delhi, 110 021, India
dpental@hotmail.com

SO Current Science (Bangalore), (10 January, 2002) Vol. 82, No. 1, pp. 46-52.
print.
CODEN: CUSCAM. ISSN: 0011-3891.

=> s ((fertil?(10a)restor?)(20a)(multiple? or duplicate?))/ab,bi

L10 35 ((FERTIL?(10A) RESTOR?)(20A)(MULTIPLE? OR
DUPLICATE?))/AB,BI

=> s l10 not l9

L11 35 L10 NOT L9

=> dup rem l11

PROCESSING COMPLETED FOR L11

L12 25 DUP REM L11 (10 DUPLICATES REMOVED)

=> s l12 and pd<=20030707

L13 13 L12 AND PD<=20030707

=> d l13 1-13 ti

L13 ANSWER 1 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Cytoplasmic male sterility in hybrids of sterile wild beet (*Beta vulgaris* ssp. *maritima*) and O-type fertile sugar beet (*Beta vulgaris* L.): Molecular analysis of mitochondrial and nuclear genomes.

L13 ANSWER 2 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Comparison of two fertility restoration systems against photoperiod-sensitive cytoplasmic male sterility in wheat.

L13 ANSWER 3 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI The dynamics of gynodioecy in *Plantago lanceolata* L. II. Mode of action and frequencies of restorer alleles.

L13 ANSWER 4 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Nuclear fertility restorer genes map to the same linkage group in cytoplasmic male-sterile bean.

L13 ANSWER 5 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI An EMS-induced wheat mutant restoring fertility against photoperiod-sensitive cytoplasmic male sterility.

L13 ANSWER 6 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Interaction of the mitochondrial S-Pcf locus for cytoplasmic male sterility in *Petunia* with ***multiple*** ***fertility*** - ***restoration*** genes in somatic hybrid plants.

L13 ANSWER 7 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI SUSTAINING ***MULTIPLE*** PRODUCTION SYSTEMS 2. SOIL ***FERTILITY***

DECLINE AND ***RESTORATION*** OF CROPPING LANDS IN SUB-TROPICAL

QUEENSLAND.

L13 ANSWER 8 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI BREEDING OF SORGHUM BY USE OF INTER CROSSING.

L13 ANSWER 9 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI CYTOPLASMIC MALE STERILITY IN PETUNIA PART 2 GENETIC CONTROL OF MICRO SPOROGENESIS AND MALE FERTILITY RESTORATION.

L13 ANSWER 10 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Fertility of the first generation hybrids from crosses of cytoplasmic male sterile Bison 10 and Chinese Spring aneuploids.

L13 ANSWER 11 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Pollen abortion in relation to cytoplasmic-genetic male sterility in Sorghum.

L13 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Genetical analysis of male-sterility in carrots, *Daucus carota* L.

L13 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

TI Genetic effects of an alien cytoplasm on male and female fertility in wheat

=> d 113 ab 2 6 9

=> s ((fertil?(10a)restor?)(20a)(gene?(10a)silenc?))/ab,bi

L14 2 ((FERTIL?(10A) RESTOR?)(20A)(GENE?(10A) SILENC?))/AB,BI

=> s 114 not 19

L15 1 L14 NOT L9

=> d 115 ab

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

AB Male sterile tobacco plants expressing a pathogenesis-related (PR)

.beta.-1,3-glucanase gene driven by the Arabidopsis thaliana A3 or A9 tapetum-specific promoter, were partially restored to fertility by retransformation with a range of pA9-driven sense and antisense PR glucanase fragments. The restored plants exhibited improved seed set. PR glucanase protein was undetectable in the anthers of these plants and there was an assocd. increase in microsporocyte callose, the structural target of the A3 and A9-driven PR glucanase. This phenotype was not solely dependent on interactions between sense and antisense PR glucanase transcripts since a pA9-driven restorer was also capable of down regulating a pA3-GUS construct in the absence of extensive promoter, coding region, or terminator sequence homol. Since the A3 and A9 promoters have similar temporal and spatial expression patterns, it is possible that trans-acting factors common to both promoters become limiting in the PR glucanase double transformants resulting in improved levels of fertility. An alternative hypothesis is that addnl. sequences present in both the silencing and target T-DNAs can mediate the silencing of adjacent non-homologous transgenes.

=> d 115

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:583997 CAPLUS <<LOGINID::20080610>>

DN 134:37655

TI The restoration of fertility in male sterile tobacco demonstrates that transgene silencing can be mediated by T-DNA that has no DNA homology to the silenced transgene

AU Hird, Diane L.; Paul, Wyatt; Hollyoak, Jane S.; Scott, Roderick J.

CS Department of Biology, University of Leicester, Leicester, LE1 7RH, UK

SO Transgenic Research (2000), 9(2), 91-102

CODEN: TRSEES; ISSN: 0962-8819

PB Kluwer Academic Publishers

=> log y

STN INTERNATIONAL LOGOFF AT 17:56:37 ON 10 JUN 2008